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Tell Me: How Do You Feel About This App?

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THERE ARE APPS for losing weight, and apps that encourage people to exercise more. Then there are apps aimed at improving your mental health.

A growing number of mobile applications are designed to help people track and manage their emotions and behavior in much the same way that fitness apps track physical activity and diet. Some have been rigorously tested, such as Mood 24/7, developed at Johns Hopkins University and tested for its ability to help manage depression and mood disorders. Others, like **Headspace**, which was developed for the consumer market and is hugely popular, have never been put through the rigors of a clinical trial.

In fact, less than 1% of commercially available mental-health apps have been studied for their efficacy. That may be changing, though. There are currently 114 studies of mental-health apps registered in ClinicalTrials.gov's database of behavior and mental-disorder clinical research studies.

App developers have been able to tap some of the techniques of cognitive behavioral therapy and translate them into useful mobile applications that, advocates say, can deliver real benefits. A study conducted in 2013 by the non-profit mental-health research organization Black Dog Institute, at the University of New South Wales in Australia, and published in the Journal of Medical Internet Research, found significant reductions in depression, stress and substance abuse from the five apps studied.

For the hard-to-reach

Although apps haven't been widely embraced by psychologists, some therapists do recommend them to their patients. These therapists say they can be useful tools, helping patients stick to plans laid out in therapy, and providing immediate support when getting into the therapist's office isn't an option. The apps can also be especially helpful in reaching two groups that are traditionally slow to avail themselves of mental-health services: teens and adult men.

"There's a tremendous amount of stigma around ther-

apy still, and I'm not sure where these misconceptions came from, but we often hear men and adolescents referring to it as lying on a couch talking about their mom," says Nadja Reilly, Ph.D., associate director of the Freedman Center for Child and Family Development at William James College. Using the apps "feels less threatening," Dr. Reilly says.

A wide variety of apps fall under the mental-health category. There are currently 3,000 available across the Apple App Store and Google Play.

By the Numbers

Mental-health apps

3,000-plus

The number of mental-health apps available from the App Store and Google Play¹

Less than 1%

The share of commercially available mental-health apps that include evidence-based practices¹

115

Clinical trials of mental-health apps registered with Clinicaltrials.gov as of August 2015²

Sources: ¹2014 review of mental-health apps by researchers from the University of California, Davis, and Harvard University, published in the journal *Healthcare*; ²Clinicaltrials.gov

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The apps provide a wide range of promised benefits. Headspace offers several hundred hours of guided meditation aimed at reducing stress or anxiety, increasing focus and creativity, or strengthening relationships. Introduced in 2012, the app has more than three million users.

A new app, called **Joyable**, promises to help reduce social anxiety. Users pay \$99 a month and are assigned a coach. Users can start with an optional 30-minute phone call, then check in via text, email or phone once a week. The app then guides users through three types of activities—educational, aimed at learning about the causes of anxiety and how to mitigate them; thought exercises that teach users how to recognize and break down the thoughts that make them anxious; and offline activities that challenge users to face their fears and learn to lead the life they want.

Joyable coaches aren't licensed therapists, but they are trained in the cognitive behavioral therapy techniques the app is based on. The San Francisco-based company says 90% of its users see an average 30% decline in their social anxiety over a three-month period. Joyable measures this decline by tracking users' Social Phobia Inventory (SPIN, a clinically validated measurement for social anxiety). Joyable users take the SPIN survey at the beginning of the program, then retake it along the way to track their progress. The average Joyable program lasts three months.

Greater awareness

Some apps are more basic. Mood 24/7 is a mood-tracking app based on research from Johns Hopkins that found asking patients to take daily stock of their mood helped make them more aware of patterns and empowered them to reach out for help when depressed. Every day, it sends users a text message asking, "On a scale of 1 to 10, what was your mood today?" Users can track their responses and share them with a therapist or physician.

Jennifer Montgomery, a clinical social worker at the University of Michigan, says that many of her mood-disorder patients have been using Mood 24/7 for years to help them track and manage their symptoms, and that it has proved to be a useful treatment tool.

Ms. Montgomery is leading a research trial for another mood app, called Priori. Targeted at bipolar patients, Priori records and analyzes calls the user makes on their phones, looking for changes in speech patterns—particularly pacing and tone—in daily conversations. The app equates those changes to a depressive, stable or manic mood, and alerts the user if there is indication of a mood shift. Eventually the app could also alert a family member or physician, if the patient opts in.

Patients, Ms. Montgomery says, "really like the idea of using the tech they already have with them all the time to help them monitor and manage their mood."